## SEQUENCE LISTING

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<110> Hillman, Jeffrey D.
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35 40 45

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<221> UNSURE
<222> (50)
<223> Xaa stands for any amino acid.

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Met Asn Ile Leu Leu Ser Asn Asp Asp Gly Ile His Ala Pro Gly Ile
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Arg Val Met Arg Thr Leu Arg Lys Ile Ala Asn Val Thr Ile Val Ala
Pro Asp Ser Asn Arg Lys Arg Leu Gln Xaa Leu Asn Leu Gly Glu
Ala Xaa Val Phe Arg Ser Phe Gly Lys Ala Xaa Ile Ile Ala Ser Thr
     50
Ala Xaa Pro Ala Xaa Cys Val His Ile Ala Leu Thr Gly Phe Leu Ser
Gly Arg Ile Asp Leu Val Ile Ser Gly Ile Asn Ala Gly Ala Asn Leu
                 85
Gly Asp Asp Val Leu Tyr Ser Gly Thr Val Ala Ala Ala Phe Glu Gly
Arg His Leu Gly Leu Pro Ser Ile Ala Val Ser Leu Asp Gly Arg Gln
His Phe Glu Thr Ala Ala Arg Val Val Cys Asp Leu Val Pro Lys Leu
    130
                        135
His Ala Gln Leu Leu Gly Lys His Glu Ile Leu Asn Ile Asn Val Pro
Asp Val Pro Tyr Glu Glu Leu Lys Gly Ile Lys Val Cys His Leu Gly
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Tyr Arg Ser Ser Ala Ser Glu Val Ile Lys Gln Gln Ser Pro Arg Gly
Glu Asp Met Tyr Trp Ile
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<212> PRT
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<213> Actinobacillus actinomycetemcomitans

<400> 19

Asp Leu Pro Leu Ala Asn Pro Tyr Glu Met Leu Ile Leu Ala Ser Ile 1 5 10 15

Val Glu Lys Glu Thr Gly Ile Ala Ala Glu Arg Pro Gln Val Ala Ser 20 25 30

Val Phe Ile Asn Arg Leu Lys Ala Lys Met Lys Leu Gln Thr Asp Pro 35 40 45

Thr Val Ile Tyr Gly Met Gly Asp Asp Tyr Asn Gly Asn Ile Arg Lys 50 55 60

Lys Asp Leu Glu Thr Pro Thr Pro Tyr Asn Thr Tyr Val Ile Asp Gly 65 70 75 80

Leu Pro Pro Thr Pro Ile Ala Met Pro Ser Glu Glu Ala Leu Gln Ala 85 90 95

Val Ala His Pro Ala Gln Thr Ala Phe Tyr Tyr Phe Val Ala Asp Gly
100 105 110

Thr Gly Gly His Lys Phe Ser Arg Asn Leu Asn Glu His Asn Lys Ala 115 120 125

Val Gln Gln Tyr Leu Arg Trp Tyr Arg Glu Gln Asn Gly Lys 130 135 140

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<212> PRT

<213> Actinobacillus actinomycetemcomitans

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Met Val Gly Lys Phe Ile Val Ile Glu Gly Leu Glu Gly Ala Gly Lys

1 5 10 15

Ser Thr Ala His Gln Cys Val Val Asp Thr Leu Lys Thr Leu Gly Val

Gly Glu Val Ile Ser Thr Arg Glu Pro Gly Gly Thr Pro Val Gly Gly 35 40 45

Lys Ala Thr Pro Ser His

14